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THE INADEQUACY OF AMERITECH'S TECHNICAL SPECIFICATIONS

45. Although Ameritech has provided some limited technical specifications covering data elements and syntax for its proposed OSS interfaces to AT&T, those technical specifications do not answer all the technical or practical details that are required to establish a working interface (Mickens, Response to AT&T Data Request 2.39a in Illinois). The specifications certainly do not permit AT&T to field test the interface to determine whether it meets the three tests for parity that I discussed above.

46. The specifications serve only to narrow the areas requiring discussion. Subject matter experts from both companies will still need to work together to implement the interfaces. Technical specifications provide guidance, but they are often incomplete and subject to interpretation with respect to the applicable business rules. These gray areas can lead to major operational issues.

47. For example, Ameritech bases its service resale ordering interface on standards developed by the Ordering and Billing Forum (OBF) of the Alliance for Telecommunications Industry Solutions (ATIS). Within the relevant OBF standard, two specific messages exist for conveying customer order information. The 850 Message conveys the initial order information, and the 860 Message provides supplemental information. While data element content of the 860 Message is defined, there is no specific OBF guidance regarding the governing business rules. By that I mean the OBF does not say whether the 860 Message should convey only changed information or whether the 860 Message should convey the entire restatement of the order.

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48. Ameritech's interpretation is that the 860 Message must convey only changed information, while AT&T's preference is to deliver a restated order in the 860 Message. Until the parties agree on a common treatment of the message, AT&T cannot efficiently send supplemental orders to Ameritech even though the supplements issued by AT&T comply with the EDI national standards for ordering, the standard with which Ameritech claims to be following. Until the parties agree on treatment of the message, therefore, the interface is not operational, for all practicality, for orders requiring a supplement.

49. Ameritech incorrectly claims that this problem lies with AT&T because the Ameritech use of the EDI 860 transaction "is consistent with its use in other industries" (Mickens Illinois Testimony, p. 10). I cannot attest to the use of the 860 transaction in other industries, but within the telecommunications industry it is AT&T's experience that NYNEX, BellSouth, US WEST, Southwestern Bell, Bell Atlantic, SNET, GTE, and Sprint have all accepted the treatment of the 860 transaction which AT&T requested of Ameritech.

50. The result of Ameritech's position, from the viewpoint of AT&T, is that the ordering interface is not yet fully operational and that nondiscriminatory access to that OSS functionality is not being delivered by Ameritech.

NONDISCRIMINATORY ACCESS MEASUREMENT

51. In order to demonstrate that nondiscriminatory access is available and being delivered to potential CLECs, Ameritech must show, through measured performance experience of a meaningful set of CLECs, that nondiscriminatory access is being delivered for all operations

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support systems related to pre-ordering, ordering, provisioning, maintenance and repair, and all aspects of billing.

52. The FCC has specifically encouraged state commissions to adopt reporting requirements related to assurance of nondiscriminatory access. (§ 311).

53. Appropriately defined and sufficiently robust sets of measurements are crucial to demonstrating that nondiscriminatory access to each OSS functionality is actually being delivered and that such nondiscriminatory access continues to be delivered on an on-going basis. Lack of a mechanism to monitor and, if necessary, ensure prompt re-establishment of nondiscriminatory access to OSS functionality will have a chilling effect on the emergence of meaningful competition in the provision of telephone exchange services. Nondiscriminatory access to OSS functionality, and to unbundled network elements in general, cannot merely be promised; it must be shown to exist across-the-board and monitored to assure it continues to be provided.

54. The delivery of nondiscriminatory access to Ameritech's operations support systems can only be verified and monitored by an appropriate measurement plan. Such a measurement plan is needed both to accomplish the initial validation and to provide on-going monitoring.

55. An acceptable measurement plan must embody at least four characteristics: (1) the plan must support statistically valid comparisons of CLEC experience to the experience of Ameritech's local service operations; (2) the plan must account for potential performance variations due to differences in service and activity mix; (3) the plan must monitor not only performance at

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the service level, but at the interface level as well; and (4) the plan must be implemented and be producing results which demonstrate that nondiscriminatory access to OSS functionality is, indeed, being delivered across all interfaces and a broad range of resold services and unbundled network elements.

56. Although Ameritech has made some constructive proposals for a conceptual measurement plan, a substantial amount of additional work is necessary before any of the four criteria in the prior paragraph are satisfied.

57. As a first step, Ameritech should demonstrate that the measurement plan will gather and retain data in a manner that permits meaningful tests for statistically significant differences in performance. The measurement plan should permit each measure, if so desired, to be tested and a determination made, at a 95% confidence level, that the CLEC results are no worse than that experienced by Ameritech's own retail local service operations or any of its affiliates. The statistical test which determines a "no worse than" (rather than a test that only states you cannot conclude a difference exists) is important so that Ameritech Illinois can positively demonstrate the absence of discriminatory access to OSS functionality.

58. The ability to test performance and determine the absence of discrimination is probably the single most important purpose of the measurement plan. Unfortunately, Ameritech has offered no testimony regarding the statistical tests, if any, that it plans to employ to demonstrate that absence of discrimination. Ameritech, in fact, was non-responsive when asked to describe the

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statistical testing applicable to its proposed measurement plan in Illinois (Mickens, Response to AT&T Data Request 2.46i in Illinois).

59. It is important that the measurement plan also account for service mix differences. When generalized measures are utilized, care must be taken to assure that they are sufficiently discrete to permit meaningful comparisons to be made. When I say discrete, I mean that a capability must exist to group and compare performance measures along dimensions that reflect commonality of attributes likely to be correlated with expected differences in performance.

60. For example, installation intervals for complex business orders are likely to be substantially longer than the installation interval for single line residence basic local service. Therefore, a due date performance measure that combines the business and residence categories into a single reported result could be misleading.

61. The example below illustrates this point:

	Installation Interval (days)	% Orders	wtd Component (days)
Company 1			
RES SINGLE BASIC LOCAL	4	15%	0.60
SERVICE COMPLEX BUS	15	85%	12.75
Average Installation Interval			13.35
Company 2			
RES SINGLE LINE BASIC			
LOCAL SERVICE	7	60%	4.20
COMPLEX BUS	20	40%	8.00

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Average Installation Interval

12.20

62. As can be seen from this preceding example, if only the average result across all services is compared, one would falsely conclude that Company 2's performance was superior to that of Company 1. In reality, however, Company 2 has worse performance for both categories of service. The difference in the average result is due to the differing product mix. It is safe to assume, at least early in the development of competition, that CLECs and Ameritech will have significantly differing product mixes. Thus, every effort should be made to disaggregate product level measures so that meaningful comparisons can be made.

63. AT&T proposes that the level of product detail outlined in Attachment I (previously submitted to the Illinois Commerce Commission as part of my supplemental testimony) should be established as the minimally acceptable level of product disaggregation for the Ameritech measurement plan. In addition, because new products will likely be introduced and others will decline and be withdrawn, the product detail should be periodically reviewed, probably annually, to assure that measures reported are meaningful. Reporting of measures at a lesser level of product detail would be acceptable, provided that the underlying data is maintained at a very granular service detail and, upon request and subject to the appropriate proprietary protection, a CLEC could sponsor an independent audit of metrics at the very discrete service level detail.

64. It is difficult to determine whether the proposed measurement plan of Ameritech addresses the issue of product mix variation from the limited amount of data supplied.

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The prototype reports reflect only a very limited level of product disaggregation -- POTS, subrate, and high capacity services. Such a level of disaggregation is less detailed even than the level at which Ameritech details its date due commitments in the information supplied to potential resellers (Due Date Intervals, Ameritech Information Industry Services Resale, Issued by: Resale Support Staff, Revised September 30, 1996). Certainly these proposed levels of product detail are still too aggregated. Due to the lack of detail in the filed information, I can only assume that Ameritech attempted to partially address the impacts of product mix, that I discussed earlier, by comparing the metric to a "target" or an "agreed upon" level. Such an approach may be workable for internal purposes of a single company.

65. When comparisons between companies must be made for the purposes of determining nondiscrimination, however, that approach is inadequate. The comparison of CLEC performance to a target is useless for purposes of determining nondiscrimination unless both the CLEC and ILEC performance are reported in comparison to the same target level. Even making a comparison of both CLEC performance and Ameritech's performance to an identical target level and then reporting only the percentage not meeting the target provides very little information of value for purposes of determining nondiscrimination. Such comparisons may even be misleading, unless the entities being compared have identical, or at least very similar, deviations in their experiences.

66. The following example demonstrates this point, again using illustrative data:

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Order	Installation Performance by Order (days) Company 1	Company 2
1	3	3
2	4	3
3	4	3
4	5	10
8	5	10
6	5	10
7	5	10
8	3	3
9	3	3
10	3	3
Average	4	5.8
Target	3	3
% Exceeding Target	60%	40%

67. In this preceding example, use of the "% exceeding target" figure would falsely lead an observer to the conclusion that Company 2 is achieving substantially better performance (in the case of this example, exceeding target is poorer performance). In fact, the performance for Company 2 when it is poor, is much, much worse than Company 1 and is never better than the best performance of Company 1. The wide variation in performance causes this situation and is the Achilles Heel of the use of "% exceeding target" measurement.

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68. This example reflects a situation that is actually likely to occur. It is reasonable to expect that the experience of CLECs will be much more variable, because of the newness of the support mechanisms and lower level of activity, than that of Ameritech. Therefore, measures similar to "% exceeding target" and "% exceeding agreed upon intervals" should be avoided in favor of actual measures of performance that are appropriately discrete and that include the actual mean performance along with a statistical measure of variation around the resulting mean for the measure —

69. It is also important to account for the activity mix in any measurement plan. The activity mix consideration is similar, in many respects, to the service mix issue. Many types of activities may be involved within the process of successfully completing a single business task. As a simple example, service repair may in some cases involve a premise visit, while in other cases remotely managed restoration is possible. Whether or not a premise visit is required will impact upon the expected (and actual) restoration interval, regardless of the service being supported.

70. The example below, illustrates how the frequency with which a premise visit occurs influences an aggregated measure for the restoration interval:

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	Restoration Interval (hours)	% Tickets	wtd Component (hours)
Company 1			
PREMISE VISITS REQUIRED	8	40%	3.20
NO PREMISE VISIT	3	60%	1.80
AVERAGE RESTORATION INTERVAL			5.00
Company 2			
PREMISE VISITS REQUIRED	8	60%	4.80
NO PREMISE VISIT	3	40%	1.20
AVERAGE RESTORATION INTERVAL			6.00

71. As this preceding illustration demonstrates, even where two companies are experiencing the same performance at the activity level, the average performance can look very different due to variations in the mix of key activities. For this reason, Ameritech should provide disaggregated performance measures when differences in the underlying mix of activities could reasonably be expected to influence the aggregate measures.

72. Areas where this can be expected to occur are outlined in Attachment II (previously submitted in Illinois as part of my supplemental testimony). With the exception of billing and network related activity measures, which Ameritech does not address at all, the key

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measures tend to be in fairly close alignment. Ameritech does not discuss whether or not additional attributes relating to activity drivers will be captured and stored so that meaningful comparisons of results can be made.

73. The same problem of using "% exceeding target" and similar measures, which I have discussed for the service mix, also apply to the activity mix. Again, actual measures of the mean performance are preferable, combined with some measure of statistical variation, such as a 95% confidence interval for the mean of the measurement reported.

74. Measures must also be established at the unbundled network element level as well as the service level. As the FCC stated in its Order of August 8, 1996 (§ 525) delivery of nondiscriminatory OSS access is a requirement not only for services resale but also for unbundled network elements. As I mentioned earlier in my statement, the FCC is looking to the state commissions to establish measurements which demonstrate that nondiscriminatory access is and continues to be delivered (§ 311).

75. Service level measures, if properly defined, may help detect discriminatory behavior relating to the support of services resale and, to a lesser extent, the use of unbundled network elements in combination. However, detecting discriminatory conditions and assuring the absence of discrimination at the network element level requires more focused measures. These measurements will typically be very limited in scope and will not be service oriented but rather will be oriented to access delivered to specific unbundled network elements, such as access to OSS functionality.

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76. The measures proposed by Ameritech for operations support systems are not adequate to determine whether nondiscriminatory access is being provided to competitors.

77. Ameritech has provided very little detail regarding its proposed performance measures for access to operations support systems. Only three measures are listed for the OSS unbundled element -- platform availability, transaction accuracy, and business function completion window -- and only a generic heading of operational support systems is shown. While the proposed measures sound like they address the tests that I have proposed for nondiscriminatory access -- equivalent availability, accuracy and timeliness -- the descriptive material that Ameritech has placed in the record is far too limited to draw any conclusions regarding the effectiveness of the proposed measures.

78. First, it is not clear that Ameritech intends to monitor and report results for each interface (Mickens, Response to AT&T Data Request 2.46b in Illinois). As Mr. Mickens notes in his testimony, there are no less than nine different interfaces (Mickens Aff., p. 17). Each supports a very different but critical process. It makes no sense to allow Ameritech to construct a set of measures where good availability performance on the part of, for example, a billing interface could mask the very poor performance on the part of another interface, such as maintenance and repair.

79. Perhaps Ameritech intends to provide reported measurement for each of the nine interfaces. However, I cannot draw that a conclusion that such a commitment exists based on the testimony that has been offered to date. For example, in defining the calculation for platform

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availability, the reference is to interfaces which indicates to me an intent to combine all interfaces into a single reported measure (Mickens Illinois Testimony, Schedule 5, Section 3, p. 1).

80. The Commission should assure itself that Ameritech will provide separately reported comparative measures for each of the nine interfaces that Mr. Mickens identified (Mickens Aff., p. 17) -- pre-ordering transactional interface (EDI), pre-ordering batch interface (file transfer), ordering transactional interface (EDI), ordering batch interface (ASR), provisioning, maintenance and repair, usage billing information (EMR), services resale billing information (AEBS), and UNE billing information (CABS).

81. Beyond measuring and reporting results for each interface, all the measures need to be better defined and further refined. While I can understand Ameritech's desire to quickly move through these proceedings, the establishment of a meaningful measurement plan is an obligation that the FCC squarely places upon this Commission and such a measurement plan is to critical safeguarding the development of competition. The measures ultimately adopted by this Commission will represent the only on-going means to promptly assess whether the requirement of nondiscriminatory access is being met. It would be imprudent to simply accept, on faith, Ameritech's unilateral proposal of such key measures and their definition.

82. Ameritech's proposed platform (not to be confused with the UNE platform, a combination of loop, local switching, and common transport requested by AT&T) availability measure also needs to be revised. The proposed platform availability measurement is calculated by dividing the "time the OSS interfaces are not available by the total time available" (Mickens Illinois

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Testimony, Schedule 5, Section 3, p. 1). I assume that the definition of "available" is that the interface under consideration is incapable of processing transactions. Ameritech did not provide that critical definition.

83. Given that understanding, the platform availability measure needs to be modified to reflect at least a differentiation of business hours (e.g., 8:00AM to 5:00PM) versus non-business hours performance. For example, if the pre-ordering interface is unavailable for three hours between 8:00 AM and 5:00 PM on a business day, that would have much greater competitive market impact (i.e., customer dissatisfaction) than if the same interface were to be unavailable for the same amount of time from 2:00AM to 6:00AM on a Sunday. Ameritech should state availability measures separately for "within normal business hours" and "outside normal business hours" for each interface in order to address the situation I just described.

84. In addition, while a comparison to Ameritech's own experience is proposed, it is not at all clear how this will be accomplished for the platform availability. Ameritech's retail local exchange service support agents and processes do not currently use any interface in common with the CLEC (Rogers, Response to AT&T Data Request 2.40a in Illinois). Ameritech, therefore, needs to clarify how the availability measure will be determined with respect to Ameritech.

85. Modifications or clarifications also appear to be necessary with respect to Ameritech's proposed accuracy and timeliness measures. Again, Ameritech has provided only very limited descriptive material, but based upon what is available, the measures are far too aggregated. Mr. Mickens states that Ameritech "is committed to assuring that the availability, transaction

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accuracy and timeliness of these interfaces are at parity with the internal use of these same functions" (Mickens Illinois Testimony, p. 23). By explicitly using the word "transaction" in the statement of Ameritech's commitment, I understand Ameritech to mean that both accuracy and timeliness will be measured for key transactions as opposed to only providing a meaningless measure of a mixture of transactions. If that is not Ameritech's intent, then serious questions regarding inadequacies of the measures would exist as I just discussed for platform availability. Indeed Ameritech has indicated that the data will be collected at the transaction level but reported only at the aggregate level (Mickens, Response to AT&T Data Request 2.46d in Illinois).

86. Furthermore, each transactional measure should be specific to a single interface. The accuracy and timeliness of transactions is crucial to quality execution of the process supported by the interface. It is the successful execution -- in terms of both timeliness and accuracy -- of these transaction that will permit CLECs to provide customer servicing that is competitive with that of Ameritech. Because of the varying types of transactions, the differing intensity of use and differing times involved for processing, monitoring measures that aggregate all transactions would be virtually useless.

87. Assuming the CLECs can monitor appropriate transactional measures for the performance they experience, they will still lack the comparable Ameritech measures necessary to determine whether or not the OSS access is nondiscriminatory. Therefore, Ameritech must be required to provide appropriate transaction level measures of both quality and timeliness.

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88. The transactional measures are specific to each interface and can become quite extensive. Nevertheless, certain key measures, undoubtedly, can be identified that balance the need to monitor the delivery of nondiscriminatory access to OSS functionality without becoming overly burdensome. Moreover, many of these or similar measures are used by customer focused businesses to assess performance of their business processes.

89. The basic measure that AT&T believes will initially serve the purpose of monitoring transaction accuracy and timeliness, for each interface, are listed in Attachment III (previously submitted to the Illinois Commission as part of my supplemental testimony).

90. It is possible that the actual values for such transactional measures could be considered proprietary. If the CLECs or Ameritech perceive that such information is proprietary, then an alternative means for reporting actual measures must be established.

91. For example, the individual companies could submit their individual performance to an unaffiliated entity that is bound by appropriate non-disclosure agreements. That entity could review and analyze the data and provide report cards to the Commission and appropriate individual CLEC report cards. The report card could show, for each transactional measure, a simple indication whether, at a 95% level of confidence, that the performance experienced by the CLEC is no less than that experienced by Ameritech.

92. Assuming cooperation by industry participants, the analysis process does not seem overly complex. Because of the criticality of the information to all parties, if cost

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recovery is an issue, then the costs of the "report card" should be recovered in a competitively neutral manner.

93. Naturally, the implementation details would need to be worked out. It seems reasonable to expect that a team of industry representatives could devise a mechanism for reporting performance, funding the work and submit a plan for Commission approval in a relatively short time frame. Naturally clarity and consensus regarding what is actually to be measured and reported would be required as an input.

94. Although the above discussion has focused only on the proposed OSS and service level measures, there are other measures relating to unbundled network elements that should also be addressed. Ameritech is obligated to provide nondiscriminatory access to all unbundled network elements and to combinations of UNEs that CLECs request and that are technically feasible to provide. There is no limitation, when the FCC looked to the state commission for input regarding measurements, that any form of access to unbundled network elements was excluded from monitoring. Accordingly, Ameritech must provide meaningful tracking that demonstrates nondiscriminatory access is indeed being delivered where UNEs are employed by a CLEC, whether used individually or in combination.

95. The testimony of Mr. Mickens shows a prototype for a measurement plan addressing unbundled loops, SS7 links, operator services and directory assistance (Mickens Illinois Testimony, Schedules 6, 8, 9 and 12). With the exception of the unbundled loops, the proposed measurements do not even begin to address more than a single dimension of the three-part test for

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nondiscriminatory access (i.e., availability, timeliness, accuracy). This lack of comprehensive measures is the first deficiency that must be corrected.

96. In addition to the paucity of measures, no enlightenment is provided regarding measurements applicable to other unbundled network elements or unbundled element combinations. Ameritech, however, is silent regarding how nondiscriminatory access will be demonstrated and monitored for this crucial UNE combination.

CONCLUSION

97. The interfaces proposed by Ameritech in this case for access to its operations support systems and databases do not meet those requirements because (1) CLECs cannot rely on Ameritech's interface specifications because they are still being revised, (2) several of the essential OSS interfaces which Ameritech claims to have deployed within the last month have never been used or tested by any CLEC, (3) testing of other OSS interfaces by AT&T has not produced satisfactory results, and (4) Ameritech has not demonstrated that its interfaces will provide parity of access to Ameritech's operations support systems.

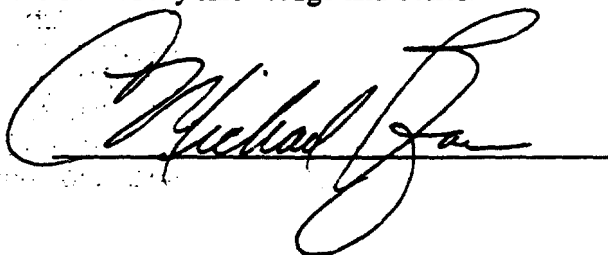
98. Ameritech's proposed measurements are, at this point, inadequate to demonstrate the existence of nondiscriminatory access either to unbundled network elements in general and to operations support systems in specific. As a minimum, Ameritech needs to make numerous clarifications, expand the measures to address all the UNEs and UNE combinations requested to date, assure that the measurements will address each of the nine OSS interfaces that

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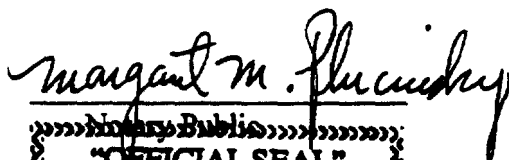
Ameritech claims to offer, commit to meaningful service and transactional level measures, show that useful statistical tests can and will be applied to demonstrate the absence of discrimination, and provide actual results that prove nondiscriminatory access is, in fact, being delivered. More importantly, the Commission must feel confident that the measurement plan ultimately produced adequately reflects the structure and detail necessary to protect developing competition in local services market.

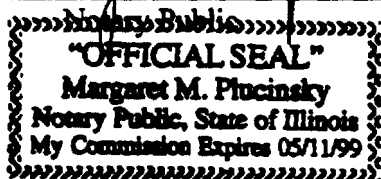
VERIFICATION

I, C. Michael Pfau, do on oath depose and state that the facts contained in the foregoing affidavit are true and correct to the best of my knowledge and belief.



SUBSCRIBED AND SWORN to
before me this 8th day of
January, 1997.





Attachment I

Proposed Minimally Acceptable Product Detail

Overview: This document lays out local services in a hierarchical groupings and subgroupings of major local service products. In some instances, measurement of results at the product family level is appropriate. In other cases, measurements at a lower level of detail are necessary because of variations in the level of support required by a particular product within the family. The italicized text indicates the product level tracking detail proposed by Ameritech Illinois. The product families, sub-families or individual product names shown in bold typeface indicate the level AT&T believes are appropriate for initial monitoring of results.

Service Family	Sub-Family	Product	Sub-Product
<i>Basic Local Exchange Service</i>	Residential Exchange Service	Single Line Service	
		Multi-line Service	
	Business Exchange Service	Single Line Service	
		Multi-line Service	
CENTREX/CENTREX-like			

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Proposed Minimally Acceptable Product Detail

Service Family	Sub-Family	Product	Sub-Product
Access lines	PBX Trunks	Digital Trunks	
		Analog Trunks	
	Low Capacity Access Lines	Analog	
		Sub-DS1 Digital	
		Coin Access	
	High Capacity Access Lines	DS1	
		DS3	
	ISDN	PRI	
		BRI	
Private Line Services	<i>Subrate Private Line Service</i>	Low Capacity Voice Services	2 point service
			multipoint service
		Low Capacity Data Services	2 point service
			multipoint service
	<i>High Capacity Private Line Svc</i>	DS1 Service	Channelized
			Unchannelized
		DS3 Service	Channelized
			Unchannelized

Attachment I

Proposed Minimally Acceptable Product Detail

Service Family	Sub-Family	Product	Sub-Product
Other Local Services	Operator Services		
	Directory Assistance		
	White Pages Listings		
	E911/911 Updates		
	Frame Relay		
	SONET Rings		

Notes:

1. Items in "bold" should be reported on a routine basis. At a minimum, the remaining services should be stored as subclassifications to permit subsequent and more detailed auditing of results. Further service detail should be accommodated if at all possible.
2. Additional disaggregation by Ameritech Class of Services (e.g., Flat Rated versus Message Rated) may be appropriate as well.
3. New services may take on increased service mix importance over time due to higher growth rates.
4. Due to the current lack of CLEC use of UNEs and UNE combinations, this list cannot be considered exhaustive and will require on-going augmentation.

ATTACHMENT II

Activity Metric Disaggregation By Supported Functionality[†]

The following material list, by supported process, the minimally acceptable detail for activity related performance measure important to the monitoring of nondiscriminatory support of local services.

ORDERING AND PROVISIONING

Key Measures should be available by product levels shown in the bold typeface in Attachment I. In addition, data collection and storage of these measures should accommodate display of performance, at the most discrete level specified in Attachment I, should investigation of potential discriminatory behavior become necessary.

Key Measures for Ordering and Provisioning Support

- † **Provisioning Intervals**
- † **Initial Failure Rates**
- Held Order Intervals**
- † **Speed of Answer by Support Center**
- Speed of Inquiry Resolution**
- † **Due Dates Not Met**

Each of the preceding measures should be capable of being displayed by the **Type of Activity**, **Activity Driver**, or any combination of the two attributes.

Type of Activity

Establish New Service (Account)
Disconnect All Services (Account)
Modify Existing Service-Add features/functions
Modify Existing Service-Delete features/functions
Modify Existing Service-Add & delete features/functions
Records Only

Activity Driver

Dispatch Required
No Dispatch Required

† Ameritech Illinois (Schedules Attached to Exhibit 8.0) indicates a willingness to supply this measure.

ATTACHMENT II

Activity Metric Disaggregation By Supported Functionality[†]

MAINTENANCE AND REPAIR

Key Measures should be available by product levels shown in the bold typeface in Attachment I. In addition, data collection and storage of these measures should accommodate display of performance, at the most discrete level specified in Attachment I, should investigation of potential discriminatory behavior become necessary.

Key Measures for Maintenance & Repair Support

- † **Time to "Resolve" Trouble**
- † **Repeat Troubles**
- Appointments Met**
- † **Trouble Rate**
- † **Speed of Answer by Support Center**
- Speed of Inquiry Resolution**

Each of the preceding measures should be capable of being displayed by the **Severity of Trouble, Necessity to Dispatch, Type of Trouble**, or any combination of the three attributes.

Severity of Trouble
Customer Out of Service
Other Troubles

Necessity to Dispatch
Premises Visit Required
No Premises Visit Required

Type of Trouble
Network Failure
Access Line Failure
Customer Requested Monitoring
No Trouble Found
Other

† Ameritech Illinois (Schedules Attached to Exhibit 8.0) indicates a willingness to supply this measure.